## **Hazard Mitigation Strategy Matrix**

| Mitigation<br>Measure | Use of applicable construction standards   | Avoidance<br>through land<br>use  | Relocation,<br>retrofitting,<br>or removal of<br>structure at<br>risk   | Removal or elimination of hazard  | Reduction or<br>limitation of<br>the amount or<br>size of the<br>hazard  | Segregation of the<br>hazard from that<br>which is to be<br>protected  |
|-----------------------|--|---|---|---|--|--|
| Severe Weather        | State Hazard Mitigation Plan Section 3 Severe Weather Priority Goal 3: UTDHS public buildings and private property to withstand the effects of severe weather.     | Avoidance of<br>severe weather was<br>determined not to<br>be economically or<br>engineering<br>feasible                                  | State Hazard Mitigation Plan Section 3 Severe Weather Priority Goal 3: UTDHS public buildings and private property to withstand the effects of severe weather.    | Removal or<br>elimination of<br>severe weather was<br>determined not to<br>be economically or<br>engineering feasible         | Reduction or<br>limitation of severe<br>weather was<br>determined not to<br>be economically or<br>engineering feasible                   | State Hazard Mitigation Plan<br>Section 3 Severe Weather<br>Priority Goal 1: assure that<br>all people have basic<br>information relating to<br>severe weather issues.       |
| Earthquake            | State Hazard Mitigation Plan Section 3 Earthquake Priority Goal 3: Include seismic standards in building codes UTDHS where appropriate                             | State Hazard Mitigation Plan Section 3 Earthquake Priority Goal 3: Include seismic standards in building codes UTDHS where appropriate    | State Hazard Mitigation Plan Section 3 Earthquake Priority Goal 1: Reduce the effects of earthquakes on critical facilities                                       | Removal or<br>elimination of<br>earthquakes was<br>determined not to<br>be economically or<br>engineering feasible            | Reduction or<br>limitation of<br>earthquakes in not<br>yet scientifically or<br>economically<br>feasible                                 | State Hazard Mitigation<br>Plan Section 3 Earthquake<br>Priority Goal 1: Reduce the<br>effects of earthquakes on<br>critical facilities                                      |
| Building Fire         | Utah Code Title<br>58 Chapter 56<br>Utah Uniform<br>Building Standards<br>Act  | Avoidance of<br>building fires<br>through land use<br>was determined not<br>to be engineering<br>feasible                                 | Utah Code Title<br>58 Chapter 56 -<br>- Utah Uniform<br>Building<br>Standards Act   | Utah Code Title<br>58 Chapter 56<br>Utah Uniform<br>Building Standards<br>Act   | Utah Code Title<br>58 Chapter 56<br>Utah Uniform<br>Building Standards<br>Act  | Utah Code Title 58<br>Chapter 56 Utah Uniform<br>Building Standards Act  |
| Drought               | State Hazard Mitigation Plan Section 3 Drought Priority Goal 2: Reduce the impact of development on water resources  | State Hazard Mitigation Plan Section 3 Drought Priority Goal 3: Improve public water infrastructure                                       | State Hazard Mitigation Plan Section 3 Drought Priority Goal 3: Improve public water infrastructure   | State Hazard Mitigation Plan Section 3 Drought Priority Goal 1: Conserve existing water resources in all sectors              | State Hazard Mitigation Plan Section 3 Drought Priority Goal 1: Conserve existing water resources in all sectors                         | State Hazard Mitigation<br>Plan Section 3 Drought<br>Priority Goal 2: Reduce the<br>impact of development on<br>water resources  |
| Tornado               | State Hazard Mitigation Plan Section 3 Severe Weather Priority Goal 3: UTDH Sign public buildings and private property to withstand the effects of severe weather. | Avoidance of<br>Tornados through<br>land use was<br>determined not to<br>be engineering<br>feasible                                       | State Hazard Mitigation Plan Section 3 Severe Weather Priority Goal 3: UTDH Sign public buildings and private property to withstand the effects of severe weather | Removal or<br>elimination of<br>tornados was<br>determined not to<br>be economically or<br>engineering feasible               | Reduction or<br>limitation of<br>tornados was<br>determined not to<br>be economically or<br>engineering feasible                         | State Hazard Mitigation<br>Plan Section 3 Severe<br>Weather Priority Goal 3:<br>UTDHS public buildings and<br>private property to withstand<br>the effects of severe weather |
| Landslide             | State Hazard Mitigation Plan Section 3 Landslide Priority Goal 4: Encourage cities, towns, and counties to develop ordinances fro geologic hazards                 | State Hazard Mitigation Plan Section 3 Priority Goal 4: Encourage cities, towns, and counties to develop ordinances for geologic hazards. | State Hazard Mitigation Plan Section 3 Priority Goal 4: Encourage cities, towns, and counties to develop ordinances for geologic hazards                          | Removal or<br>elimination of<br>landslide UTDHS<br>was determined not<br>to be economically<br>or engineering<br>feasible     | State Hazard Mitigation Plan Section 3 Priority Goal 4: Encourage cities, towns, and counties to develop ordinances for geologic hazards | State Hazard Mitigation Plan Section 3 Priority Goal 4: Encourage cities, towns, and counties to develop ordinances for geologic hazards                                     |
| Flooding              | State Hazard Mitigation Plan Section 3 Flood Priority Goal 2: Mitigate flood loss by structural projects   | Utah Code Title<br>17 Chapter 08<br>Flood Control<br>Projects and<br>Drought<br>Emergencies   | State Hazard<br>Mitigation Plan<br>Section 3<br>Flooding Priority<br>Goal 2: mitigate<br>flood loss by<br>structural projects                                     | State Hazard<br>Mitigation Plan<br>Section 3 Flooding<br>Priority Goal 2:<br>mitigate flood loss<br>by structural<br>projects | State Hazard<br>Mitigation Plan<br>Section 3 Flood<br>Priority Goal 1:<br>Obtain benefits of<br>NFIP for all<br>property owners.         | State Hazard Mitigation<br>Plan Section 3 Flooding<br>Priority Goal 2: mitigate<br>flood loss by structural<br>projects  |

| Mitigation Measure | Use of applicable construction standards   | Avoidance<br>through<br>land use  | Relocation,<br>retrofitting,<br>or removal<br>of structure<br>at risk   | Removal or<br>elimination<br>of hazard   | Reduction or limitation of the amount or size of the hazard  | Segregation of the hazard<br>from that which is to be<br>protected   |
|--------------------|--|---|---|--|--|--|
| Dam Failure        | Utah Code 73-5a-201 Approval of state engineer necessary to construct, alter, or abandon dams. State Hazard Mitigation Section 3 Plan Dam Safety Priority Goal 1 | State Hazard<br>Mitigation Plan<br>Section 3 Dam<br>Safety Priority<br>Goal 1: Bring<br>existing dams<br>up to current<br>standards | State Hazard<br>Mitigation Plan<br>Section 3 Dam<br>Safety Priority<br>Goal 1: Bring<br>existing dams<br>up to current<br>standards                                     | State Hazard<br>Mitigation Plan<br>Section 3 Dam<br>Safety Priority<br>Goal 1: Bring<br>existing dams<br>up to current<br>standards    | State Hazard<br>Mitigation Plan<br>Section 3 Dam<br>Safety Priority<br>Goal 1: Bring<br>existing dams<br>up to current<br>standards    | State Hazard Mitigation Plan<br>Section 3 Dam Safety Priority Goal<br>2: Bring advances in the scientific<br>and engineering fields into dam<br>safety planning                                      |
| Wildfire           | Utah Code<br>Title 58<br>Chapter 56<br>Utah Uniform<br>Building<br>Standards Act   | The State does<br>not have a state<br>wide land use<br>law/ordinance  | State Hazard Mitigation Plan Section 3 Wildfire Priority Goal 2: provide public information and education regarding the wildfire hazard and what people can do about it | State Hazard<br>Mitigation Plan<br>Section 3<br>Wildfire<br>Priority Goal 1:<br>eliminate<br>dangerous fuel<br>loading in<br>wildlands | State Hazard<br>Mitigation Plan<br>Section 3<br>Wildfire<br>Priority Goal 1:<br>eliminate<br>dangerous fuel<br>loading in<br>wildlands | State Hazard Mitigation Plan<br>Section 3 Wildfire Priority Goal 3:<br>encourage and assist local<br>governments to require property<br>owners and developers to utilize<br>defensible space tactics |

| Mitigation<br>Measure | Modification of<br>the basic<br>characteristics of<br>the hazard   | Control of<br>the rate of<br>release  | Provisions of protective systems or equipment of for both cyber or physical risk  | Establishment of hazard warning and communication procedures   | Redundancy or<br>duplication of essential<br>personnel, critical<br>systems, equipment,<br>information, operations,<br>or materials   |
|-----------------------|--|---|---|--|---|
| Severe Weather        | Modification of the<br>basic characteristics of<br>severe weather was<br>determined not to be<br>economically or<br>engineering feasible | Control of the rate<br>of release for<br>severe weather<br>was determined<br>not to be<br>engineering<br>feasible | Utah Department of Public Safety Threat Assessment, Countermeasures sections; The Utah Terrorism and Foreign Counterintelligence Threat Assessment, Assessment Summary, Appendix 1 Foreign Counterintelligence, Appendix 2 Intelligence Priorities, and Appendix 3 Possible Indicators of Surveillance. | State Hazard Mitigation Plan Section 3 Severe Weather Priority Goal 2: provide or enhance severe weather warning systems. State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise, |
| Earthquake            | Modification of the<br>basic characteristics of<br>earthquakes was<br>determined not to be<br>economically or<br>engineering feasible    | Control of the rate of release of earthquakes was determined not to be engineering feasible                       | Utah Department of Public Safety Threat Assessment, Countermeasures sections; The Utah Terrorism and Foreign Counterintelligence Threat Assessment, Assessment Summary, Appendix 1 Foreign Counterintelligence, Appendix 2 Intelligence Priorities, and Appendix 3 Possible Indicators of Surveillance. | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process   | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise, |
| Building Fire         | Utah Code Title 58<br>Chapter 56 Utah<br>Uniform Building<br>Standards Act   | Utah Code Title<br>58 Chapter 56 -<br>- Utah Uniform<br>Building<br>Standards Act                                 | Utah Department of Public Safety Threat Assessment, Countermeasures sections; The Utah Terrorism and Foreign Counterintelligence Threat Assessment, Assessment Summary, Appendix 1 Foreign Counterintelligence, Appendix 2 Intelligence Priorities, and Appendix 3 Possible Indicators of Surveillance. | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process   | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise, |

| Mitigation<br>Measure | Modification of<br>the basic<br>characteristics of<br>the hazard   | Control of the rate of release  | Provisions of protective systems or equipment of for both cyber or physical risk   | Establishment of hazard warning and communication procedures   | Redundancy or<br>duplication of essential<br>personnel, critical<br>systems, equipment,<br>information, operations,<br>or materials   |
|-----------------------|--|---|--|--|---|
| Drought               | State Hazard<br>Mitigation Plan Section<br>3 Drought Priority Goal<br>3 Improve public water<br>infrastructure         | State Hazard<br>Mitigation Plan Section<br>3 Drought Priority Goal<br>3 Improve public water<br>infrastructure  | Utah Department of<br>Public Safety Threat<br>Assessment,<br>Countermeasures<br>sections; The Utah<br>Terrorism and Foreign<br>Counterintelligence<br>Threat Assessment,<br>Assessment Summary,<br>Appendix 1 Foreign<br>Counterintelligence,<br>Appendix 2 Intelligence<br>Priorities, and<br>Appendix 3 Possible<br>Indicators of<br>Surveillance. | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process   | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise, |
| Tornado               | Modification of the basic characteristics of tornados was determined not to be engineering feasible                    | Control of the rate of release for tornados was determined not to be engineering feasible                       | Utah Department of<br>Public Safety Threat<br>Assessment,<br>Countermeasures<br>sections; The Utah<br>Terrorism and Foreign<br>Counterintelligence<br>Threat Assessment,<br>Assessment Summary,<br>Appendix 1 Foreign<br>Counterintelligence,<br>Appendix 2 Intelligence<br>Priorities, and<br>Appendix 3 Possible<br>Indicators of<br>Surveillance. | State Hazard Mitigation Plan Section 3 Severe Weather Priority Goal 2: provide or enhance severe weather warning systems. State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise, |
| Landslide             | Modification of the<br>basic characteristics of<br>landslide UTDHS was<br>determined not to be<br>engineering feasible | Control of the rate of release of landslide UTDHS was determined not to be economically or engineering feasible | Utah Department of<br>Public Safety Threat<br>Assessment,<br>Countermeasures<br>sections; The Utah<br>Terrorism and Foreign<br>Counterintelligence<br>Threat Assessment,<br>Assessment Summary,<br>Appendix 1 Foreign<br>Counterintelligence,<br>Appendix 2 Intelligence<br>Priorities, and<br>Appendix 3 Possible<br>Indicators of<br>Surveillance. | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process   | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise, |

| Mitigation<br>Measure | Modification of<br>the basic<br>characteristics of<br>the hazard  | Control of the rate of release  | Provisions of protective systems or equipment of for both cyber or physical risk  | Establishment of hazard warning and communication procedures   | Redundancy or<br>duplication of essential<br>personnel, critical<br>systems, equipment,<br>information, operations,<br>or materials  |
|-----------------------|---|---|---|--|--|
| Flooding              | State Hazard<br>Mitigation Plan Section<br>3 Flood Priority Goal 2:<br>To mitigate flood loss<br>by structural projects       | State Hazard<br>Mitigation Plan Section<br>3 Flood Priority Goal 4:<br>Mitigate flooding as a<br>result of wildfires          | Utah Department of<br>Public Safety Threat<br>Assessment,<br>Countermeasures<br>sections; The Utah<br>Terrorism and Foreign<br>Counterintelligence<br>Threat Assessment,<br>Assessment Summary,<br>Appendix 1 Foreign<br>Counterintelligence,<br>Appendix 2<br>Intelligence Priorities,<br>and Appendix 3<br>Possible Indicators of<br>Surveillance.  | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise,                                  |
| Dam Failure           | State Hazard<br>Mitigation Plan Section<br>3 Dam Safety Priority<br>Goal 1: Bring existing<br>dams up to current<br>standards | State Hazard<br>Mitigation Plan Section<br>3 Dam Safety Priority<br>Goal 1: Bring existing<br>dams up to current<br>standards | State Hazard Mitigation Plan Section 3 Dam Safety Priority Goal 2 Update dam Emergency Action Plans. Required by State Code 73-5a-601 Utah Department of Public Safety Threat Assessment, Countermeasures sections; The Utah Terrorism and Foreign Counterintelligence Threat Assessment, Assessment Summary, Appendix 1 Foreign Counterintelligence, Appendix 2 Intelligence Priorities, and Appendix 3 Possible Indicators of Surveillance. | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process | ADP (Automation) Disaster Plan<br>Communications, III Disaster<br>Action Plan; State Continuity of<br>Operations (COOP) Plan<br>Continuity Operations Strategy;<br>UTDHS Emergency Action Plan<br>II.3 Organization and Personnel<br>Responsibilities; UTDHS EOC<br>SOP III. Concept, EOC staff;<br>HMGP Admin. Plan State Hazard<br>Mitigation Team duplication<br>expertise, |
| Wildfire              | State Hazard<br>Mitigation Plan Section<br>3 Wildfire Priority<br>Goal 1: Eliminate<br>dangerous fuel loading<br>in wildlands | State Hazard<br>Mitigation Plan Section<br>3 Wildfire Priority<br>Goal 1: Eliminate<br>dangerous fuel loading<br>in wildlands | Utah Department of<br>Public Safety Threat<br>Assessment,<br>Countermeasures<br>sections; The Utah<br>Terrorism and Foreign<br>Counterintelligence<br>Threat Assessment,<br>Assessment Summary,<br>Appendix 1 Foreign<br>Counterintelligence,<br>Appendix 2<br>Intelligence Priorities,<br>and Appendix 3<br>Possible Indicators of<br>Surveillance.  | State Emergency Response Plan, Annex SS Detection and Monitoring, Annex F Emergency Communications, Annex G Emergency Public Information; State Warning Plan, III Warning Conditions; UTDHS Emergency Action Guide; UTDHS Emergency Operations SOP, Notification; State EAS Operations Plan, Activation Requests and Process | ADP (Automation) Disaster Plan Communications, III Disaster Action Plan; State Continuity of Operations (COOP) Plan Continuity Operations Strategy; UTDHS Emergency Action Plan II.3 Organization and Personnel Responsibilities; UTDHS EOC SOP III. Concept, EOC staff; HMGP Admin. Plan State Hazard Mitigation Team duplication expertise,                                  |